

a plurality of data collectors disposed in a network, and which collect data pertaining to operation of the network from network devices;

A1 a first flow aggregation process, connected to the plurality of data collectors, wherein the data collectors send the collected data to the first flow aggregation process; and

wherein the data collectors dispose of the collected data only after receiving an acknowledgment that the data has been received with the first flow aggregation process processing the data to generate aggregated records; and

a second flow aggregation process, connected to the data collectors, wherein the data collectors send the collected data to the second flow aggregation process, and dispose of the collected data only after receiving an acknowledgment that the data has been received, with the second flow aggregation process processes the data to generate aggregated records.

Please add claims 3-23, as follows.

3. The method of claim 2 wherein if the data collector determines that the flow aggregation process is not operating, the method further comprises:

continuing to collect and store accounting records from the network device for future transmission to that flow aggregation process.

A2 4. The method of claim 2 wherein if the data collector does not receive an acknowledgment signal in response to transmitting the records to the flow aggregation process, the method further comprises:

determining an error relating to the first flow aggregation process; and

causing aggregate reports from the second flow aggregation process to be sent to the accounting module in place of the aggregate reports from the first flow aggregation process.

5. The method of claim 2 wherein the data collector produces network accounting records (NARs) from collected data.

6. The method of claim 5 wherein if the transfer is successful, the method further comprises:

removing from a local store of the data collector the locally stored copies of the transferred NARs.

7. The method of claim 5 wherein store and forward capabilities of the flow data collector provide fault tolerance at this accounting process level to ensure reliable data transfer.

A2 8. The method of claim 5 wherein flow data collector only transfers NARs when the data collector has determined that the flow aggregation process is available, and the data collector considers the NAR transfer successful upon receipt of an acknowledgment from the flow aggregation process.

9. The method of claim 1 further comprises:
determining an error relating to the first flow aggregation process, and causing aggregate reports from the second flow aggregation process to be sent to the accounting module in place of the aggregate reports from the first flow aggregation process.

10. The system of claim 2 wherein the first and the second flow aggregation process summarizes related information from the received NARs across network devices.

11. The system of claim 2 further comprising:
an error detection process that detects an error relating to the first flow aggregation process, to cause the aggregate reports from the second flow aggregation process to be sent to the accounting module in place of the aggregate reports from the first flow aggregation process.

12. The system of claim 11 wherein the data collector further comprises:
logic to determine that the flow aggregation process is not operating to cause the data collector to collect and store accounting records from the network device for future transmission to the flow aggregation process.

13. The system of claim 11 wherein the data collector, further comprises:

logic to determine an error relating to the first flow aggregation process; and to cause aggregate reports from the second flow aggregation process to be sent to the accounting module in place of the aggregate reports from the first flow aggregation process.

14. The system of claim 11 wherein the data collector produces network accounting records (NARs) from collected data.

15. The system of claim 14 wherein the data collectors further comprise:
a local store that locally stored copies of the transferred NARs.

16. The system of claim 11 wherein the data collectors provide store and forward capabilities to provide fault tolerance to the accounting module to ensure reliable data transfer.

17. The system of claim 11 wherein the data collector only transfers NARs when the data collector has determined that the flow aggregation process is available, and the data collector considers the NAR transfer successful upon receipt of an acknowledgment from the flow aggregation process.

18. A computer program product residing on a computer readable medium for transmitting accounting records in an accounting system comprising instructions to cause a computer to:

collect data associated with a network device and produce accounting records from the data;

transmit the accounting records to first and second flow aggregation processes to produce aggregate reports of the accounting records;

store the accounting records in a local storage; and

await an acknowledgment signal from the first flow aggregation process that the flow aggregation process received the accounting records before discarding the accounting records sent to the first flow aggregation process; and

determine an error relating to the first flow aggregation process to cause the aggregate reports from the second flow aggregation process to be sent to the accounting module in place of the aggregate reports from the first flow aggregation process.

19. The computer program product of claim 18 further comprising instructions to cause a computer to:

determine that one of the flow aggregation processes is not operating;
cause the data collector to continue to collect and store records from the network device for future transmission to that flow aggregation process.

20. The computer program product of claim 19 wherein the data collector produces network accounting records (NARs) from collected data.

21. The computer program product of claim 19 further comprises instructions to:
remove the locally stored copies of the transferred NARs from a local store of the data collector if the transfer is successful.

22. The computer program product of claim 19 wherein store and forward capabilities of the flow data collector provide fault tolerance at accounting process to ensure reliable data transfer.

23. The computer program product of claim 19 further comprises instructions to:
determine that aggregation process is available before the data collector transfers NARs,
and the data collector considers the NAR transfer is successful upon receipt of an acknowledgment from the aggregation process.
